

Flag-peptide	GAD65	Not I	IA2	Not I	PPINS	poly-his
DYKDDDDDK-----	KKKRRPRKKK-----			KKKRRPRKKK-----		CNGSHHHHHH

FIG. 1a

Flag-peptide	GAD65	Sgf I	IA2	Sgf I	PPINS	poly-his
DYKDDDDDK-----	KKKRRSRKKK-----			KKKRRSRKKK-----		CNGSHHHHHH

FIG. 1b

MRRRRPGGLGGGRLRLCLLLSSRPGGCSA VSAHGCLFDRRLCSHLEVCIQDGLFGQCQVGVGQARPLLQVTSPVLQRL
QGVLRQLMSQGLSWHDDL TQYVISQEMERIPRLRPPEPRDRSGLAPKRPGPAGELL LQDIPTGSAPAAQHRLPQPPVGKGG
AGASSLSPLQAE L L PPLLEHLLPPQPPHPSLSYEPALLQPYLFHQFGSRDGSRVSESGPMVSVGPLKAEAPALFSRTASKGI
FGDHPGHSYGDLPGPSAQLFQD SGLLYLAQELPAPSRARVPRLPEQSSSRAEDSPEGYEKEGLGDRGEKPA SPAVQPDAAAL
QRLAAVLAGYVELRQLTPEQLSTLLTLQLPKGAGRNP GGVNVGADIKKTM EGPVEGRDTAELPARTSPMPGHPTASPT
SSEVQQVSPVSSEPPKAA RPPVTPVLLLEKKSP LGSQQT VAGQPSARPA AEEYGYIVTDQKPLSLAAGVKLLEILAEHVMSS
GSFNISVVGPALTFRI RHNEQNLSLADVTQQAGLVKSELEAQTGLQILQTGVGQREEAAVLPQTAHSTSPMRSVLLTLVALA
GVAGLLVALAVALCVRQHARQQDKERLAALGPEGAGHDITFEYQDLCRQHMA TKSLFNRAEGPPEPSRVSSVSSQSFSDAAQ
ASSSHSTPSWCEEPAQANMDISTGHMILAYMEDHLNRDR LAK EWQALCA YQAE PNTCA TAQGE GNIKKNRHPDFLPYDH
ARIK LK VESSPSRSDYINASPIEHDP RMPA YIA TOGPLSHTIADFWQMVWESGCTIVVMLTPLVEDGVKQCDRYWPDEGASLY
HVYEVN LVSEHIWCEDFLVRSEY LKNVQTQETRIL TQEHFLSWPAEGTPASTRPLLLDFRRKVNKC YRGRSCPIIVHCS
SDGAGR
TGTYLIDMVLNRMAKGVKEIDIAATLEHV RDORPGLVRSKDQOFEFALTAVAEVNAILKALPQ

FIG. 2a

MASPGSFWFSGEDSGDSENPGTARA WCQVAQKFTGGIGNKL CALLYGD AEKPAESGGSQPPRAAAR KAAACADQKPCS
CSKVDVNY AFLHATD L L PACDGERPTLAFLODV MNILLQYVVKSFDRSTKVIDFHYPNELLOEYNWELADOPONLEEILMHC
QTTLKYAIKTGHPRYFNQLSTGLDMVGLAADWL TSTANTNMFTY EIA PVFVLL EYVTLKKMREIIGWPGSGDGFSPGGAIS
NMYAMMIARFKMFPEVKEKGMAALPRLIAFTSEHSHESLKKGAAALGIGTDSVILIKCDERGKMIPSDLERRILEAKOKGFVPE
LVSATAGTTVYGAFDPLLA VADICKKYKIWMHVDAAWGGLLMSRKHKWKLSGVERANSVTWNPHKMMGVPLQCSALLY
REEGLMONCNOMHASYLEQQDKHYDLSYDTGDKALOCGRHVDVFKLWLMWRAKGTTGFEAHVDKCLELAEYLYNIIKNR
EGYEMVFDGKPKOHTNVCFWYIPPSLRTLEDNEERMSRLSKVAPVIKARMMEYGTTMVSYOPLGDKVNFFRMVISNPAATHQ
DIDELIEIEIERLGQDL

FIG. 2b

MALWMRLLPLLALLALWGPDPAAAFVNQHLCGSHLVEALYLVCGERGFFYT
PKTRREAEDLQVGQVELGGPGAGSLQPLALEGSLQKRGIVEQCCTSICSLYQ
LENYCN

FIG. 2c

1 ACCCGCCCTC GCCGCTCGGC CCCGCGCGTC CCCGCGCGTG CCCTCCTCCC
 51 GCCACACGGC ACGCACGCGC GCGCAGGGCC AAGCCGAGGC AGCCGCCCCG
 101 AGCTCGCACT CGCTGGCGAC CTGCTCCAGT CTCCAAAGCC GATGGCATCT
 151 CCGGGCTCTG GCTTTTGGTC TTTCGGGTCG GAAGATGGCT CTGGGGATTG
 201 CGAGAATCCC GGCACAGCGC GAGCCTGGTG CCAAGTGGCT CAGAAGTTCA
 251 CGGGCGGCAT CGGAAACAAA CTGTGCGCCC TGCTCTACGG AGACGCCGAG
 301 AAGCCGGCGG AGAGCGGCGG GAGCCAACCC CCGCGGGCCG CCGCCCGGAA
 351 GGCCGCCTGC GCCTGCGACC AGAAGCCCTG CAGCTGCTCC AAAGTGGATG
 401 TCAACTACGC GTTTCTCCAT GCAACAGACC TGCTGCCGGC GTGTGATGGA

 451 GAAAGGCCCA CTTTGGCGTT TCTGCAAGAT GTTATGAACA TTTTACTTCA
 501 GTATGTGGTG AAAAGTTTCG ATAGATCAAC CAAAGTGATT GATTTCATT
 551 ATCCTAATGA GCTTCTCCAA GAATATAATT GGAATTGGC AGACCAACCA
 601 CAAAATTTGG AGGAAATTTT GATGCATTGC CAAACAACCTC TAAAATATGC
 651 AATTAAAACA GGGCATCCTA GATACTTCAA TCAACTTTCT ACTGGTTTGG
 701 ATATGGTTGG ATTAGCAGCA GACTGGCTGA CATCAACAGC AAATACTAAC
 751 ATGTTACCT ATGAAATTGC TCCAGTATTT GTGCTTTTGG AATATGTCAC
 801 ACTAAAGAAA ATGAGAGAAA TCATTGGCTG GCCAGGGGGC TCTGGCGATG
 851 GGATATTTTC TCCCGGTGGC GCCATATCTA ACATGTATGC CATGATGATC
 901 GCACGCTTTA AGATGTTCCC AGAAGTCAAG GAGAAAGGAA TGGCTGCTCT
 951 TCCCAGGCTC ATTGCCTTCA CGTCTGAACA TAGTCATTTT TCTCTCAAGA
 1001 AGGGAGCTGC AGCCTTAGGG ATTGGAACAG ACAGCGTGAT TCTGATTAAA
 1051 TGTGATGAGA GAGGGAAAAT GATTCCATCT GATCTTGAAA GAAGGATTCT
 1101 TGAAGCCAAA CAGAAAGGGT TTGTTCTTTT CCTCGTGAGT GCCACAGCTG
 1151 GAACCACCGT GTACGGAGCA TTTGACCCCC TCTTAGCTGT CGCTGACATT
 1201 TGCAAAAAGT ATAAGATCTG GATGCATGTG GATGCAGCTT GGGGTGGGGG
 1251 ATTACTGATG TCCCGAAAAC ACAAGTGGAA ACTGAGTGGC GTGGAGAGGG

FIG. 3a

1 CAGCCCCCTCT GGCAGGCTCC CGCCAGCGTC GCTGCGGCTC CGGCCCCGGA
51 GCGAGCGCCC GGAGCTCGGA AAGATGCGGC GCCCGCGGCG GCCTGGGGGT
101 CTCGGGGGAT CCGGGGGTCT CCGGCTGCTC CTCTGCCTCC TGCTGCTGAG
151 CAGCCGCCCCG GGGGGCTGCA GCGCCGTTAG TGCCACGGC TGTCTATTTG
201 ACCGCAGGCT CTGCTCTCAC CTGGAAGTCT GTATTCAGGA TGGCTTGTTT
251 GGGCAGTGCC AGGTGGGAGT GGGGCAGGCC CGGCCCCCTT TGCAAGTCAC
301 CTCCCCAGTT CTCCAACGCT TACAAGGTGT GCTCCGACAA CTCATGTCCC
351 AAGGATTGTC CTGGCACGAT GACCTCACCC AGTATGTGAT CTCTCAGGAG
401 ATGGAGCGCA TCCCCAGGCT TCGCCCCCA GAGCCCCGTC CAAGGGACAG
451 GTCTGGCTTG GCACCAAGA GACCTGGTCC TGCTGGAGAG CTGCTTTTAC
501 AGGACATCCC CACTGGCTCC GCCCCTGCTG CCCAGCATCG GCTTCCACAA
551 CCACCAGTGG GCAAAGGTGG AGCTGGGGCC AGCTCCTCTC TGTCCCCTCT
601 GCAGGCTGAG CTGCTCCCGC CTCTCTTGA GCACCTGCTG CTGCCCCAC
651 AGCCTCCCCA CCCTTCACTG AGTTACGAAC CTGCCTTGCT GCAGCCCTAC
701 CTGTTCCACC AGTTTGGCTC CCGTGATGGC TCCAGGGTCT CAGAGGGCTC
751 CCCAGGGATG GTCAGTGTCG GCCCCTGCC CAAGGCTGAA GCCCCTGCCC
801 TCTTCAGCAG AACTGCCTCC AAGGGCATAT TTGGGGACCA CCCTGGCCAC
851 TCCTACGGGG ACCTTCCAGG GCCTTCACCT GCCCAGCTTT TTCAAGACTC
901 TGGGCTGCTC TATCTGGCCC AGGAGTTGCC AGCACCAGC AGGGCCAGGG
951 TGCCAAGGCT GCCAGAGCAA GGGAGCAGCA GCCGGGCAGA GGA TCCCCA
1001 GAGGGCTATG AGAAGGAAGG ACTAGGGGAT CGTGGAGAGA AGCCTGCTTC
1051 CCCAGCTGTG CAGCCAGATG CGGCTCTGCA GAGGCTGGCC GCTGTGCTGG
1101 CGGGCTATGG GGTAGAGCTG CGTCAGCTGA CCCCTGAGCA GCTCTCCACA
1151 CTCCTGACCC TGCTGCAGCT ACTGCCCAAG GGTGCAGGAA GAAATCCGGG
1201 AGGGGTTGTA AATGTTGGAG CTGATATCAA GAAAACAATG GAGGGGCCGG
1251 TGGAGGGCAG AGACACAGCA GAGCTTCCAG CCCGCACATC CCCCATGCCT

FIG. 3c

1 CTCGAGGGGC CTAGACATTG CCCTCCAGAG AGAGCACCCA ACACCCTCCA
51 GGCTTGACCG GCCAGGGTGT CCCCTTCCTA CCTTGGAGAG AGCAGCCCCA
101 GGGCATCCTG CAGGGGGTGC TGGGACACCA GCTGGCCTTC AAGGTCTCTG
151 CCTCCCTCCA GCCACCCAC TACACGCTGC TGGGATCCTG GATCTCAGCT
201 CCCTGGCCGA CAACACTGGC AAATCCTAC TCATCCACGA AGGCCCTCCT
251 GGGCATGGTG GTCCTTCCCA GCCTGGCAGT CTGTCCTCA CACACCTTGT
301 TAGTGCCAG CCCCTGAGGT TGCAGCTGGG GGTGTCTCTG AAGGGCTGTG
351 AGCCCCAGG AAGCCCTGGG GAAGTGCCTG CCTTGCCTCC CCCCGGCCCT
401 GCCAGCGCCT GGCTCTGCCC TCCTACCTGG GCTCCCCCA TCCAGCCTCC
451 CTCCCTACAC ACTCCTCTCA AGGAGGCACC CATGTCCTCT CCAGCTGCCG
501 GGCCTCAGAG CACTGTGGCG TCCTGGGGCA GCCACCGCAT GTCCTGCTGT
551 GGCATGGCTC AGGGTGAAA GGGCGGAAGG GAGGGGTCCT GCAGATAGCT
601 GGTGCCCACT ACCAAACCCG CTCGGGGCAG GAGAGCCAAA GGCTGGGTGT
651 GTGCAGAGCG GCCCCGAGAG GTTCCGAGGC TGAGGCCAGG GTGGGACATA
701 GGGATGCGAG GGGCCGGGGC ACAGGATACT CCAACCTGCC TGCCCCATG
751 GTCTCATCCT CCTGCTTCTG GGACCTCTG ATCCTGCCCC TGGTGCTAAG
801 AGGCAGGTAA GGGGCTGCAG GCAGCAGGGC TCGGAGCCCA TGCCCCCTCA
851 CCATGGGTCA GGCTGGACCT CCAGGTGCCT GTTCTGGGGA GCTGGGAGGG
901 CCGGAGGGGT GTACCCAGG GGCTCAGCCC AGATGACACT ATGGGGGTGA
951 TGGTGTCATG GGACCTGGCC AGGAGAGGGG AGATGGGCTC CCAGAAGAGG
1001 AGTGGGGGCT GAGAGGGTGC CTGGGGGGCC AGGACGGAGC TGGGCCAGTG
1051 CACAGCTTCC CACACCTGCC CACCCCAGA GTCCTGCCGC CACCCCAGA
1101 TCACACGGAA GATGAGGTCC GAGTGGCCTG CTGAGGACTT GCTGCTTGTC
1151 CCCAGGTCCC CAGGTCATGC CCTCCTTCTG CCACCCTGGG GAGCTGAGGG
1201 CCTCAGCTGG GGCTGCTGTC CTAAGGCAGG GTGGGAACTA GGCAGCCAGC
1251 AGGGAGGGGA CCCCTCCCTC ACTCCCACTC TCCCACCCC ACCACCTTGG
1301 CCCATCCATG GCGGCATCTT GGGCCATCCG GGACTGGGGA CAGGGGTCTT
1351 GGGGACAGGG GTCCGGGGAC AGGGTCCTGG GGACAGGGGT GTGGGGACAG

FIG. 3f